#9

A Dissertation on Cynanche Trachealis

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Introduction

It is my intention, in the following essay, to treat of Cynanche Trachealis or croup. This is a very powerful disease, and proves a ~~[illegible]~~ cause of death to a great number of children, in those districts of country in which it is endemical. It is a disease of modern origin, having only been first taken notice of about half a century since. Dr Home of Edinburg, was formerly supposed to have been the discoverer of this disease, but it has since been ascertained, that, the honour is due, to an obscure practitioner in one of the counties of England. The name of croup has been given to an inflammation of the upper part of the Trachea, Glottis, and Larynx, whether, it affects the membranes of these parts, or the muscles adjoining.

It most generaly attacks children, between the age of one and five years; sometimes, they are attached at an earlier age than one year, and, even adults are not exempt from it, though these

cases are of rare occurence. It is not of a contagious nature, though it is endemic to certain districts of country, while surrounding parts are completly exempt from the disease. Fells Point near the city of Baltimore is a striking example of this. It is there a source of death, to a vast number of children, every year, while the disease is scarcely known in the city.

Croup has been divided into spasmodic, and inflammatory; the former generally runs its course in a few hours, destroying the patient by suffocation, and on dissection, exhibits no signs of inflammation; while the latter is more protracted, and on dissection, shows that inflammation had existed. It seldom attacks children untill after they are weaned, after which period the younger they are, the more liable they are to it; and after having it once, they are subject to frequent attacks, untill they have passed that period of their lives which exempts them from it.

A day or two previous, to an attack of this disease, the child appears drowsy,

inactive, and fretful: the eyes are somewhat suffused, and heavy, with a cough; which from ~~the~~ the first has a peculiar sound. This disease frequently comes on with the ordinary symptoms of a common catarrh, which gradually grows worse, untill it is completly developed.

The voice at this time, has a shrill ringing sound, which has been compared, to the crowing of a cock, a cough generaly attends the disease; every fit of which, agitates the patient very much, the face becomes flushed: the eyes protuberant, and a general tumor takes place, attended with a convulsive effort to renew respiration at the close of each fit.

Dr Rush says, he has often seen this croupy cough remain for several days, after all the symptoms had gone off; and then disapear, without the use of any remedies. This cough is commonly dry, and if any thing be spit up, it is matter of a purulent appearance, sometimes intermixed with films, resembling a membrane.

Much has been said by European writers, with respect, to the existance of a membrane in the Larynx, and which they in the worst cases, suppose to be the cause of death from suffocation.

but in the dissections in our own country, such a membrane has rarely been seen. where the death of the child is sudden, it no doubt results from suffocation, produced by a violent spasmodic action of the muscles of the Glottis; and those in the neighbourhood, which spasm; arises from an increased irritability of these muscles, in consequence of the inflammation with which they are affected; with the symptoms already enumerated, there is much thirst, with an uneasy sense of heat over the body, great restlessness, and frequency of pulse. If the patient is old enough to give an account of his feelings, he complains of a sense of tightness about the Larynx, with pain in the part on pressure

The common seat of croup is in the lining membrane of the Trachea; but it may extend to the bronchia, producing an engorgement of the lungs, as in Peripneumonia notha.

In an advanced stage of the disease, the respiration becomes still more difficult, the countenance livid, the eyes wild and somewhat suffused.

The child after some time becomes more calm, the pulse small and weak, frequently a low delirium now comes on, after which subsultus tendinum, and the usual harbingers of death close the scene.

When the disease is about to terminate favourably; it is by a resolution of the inflammation, by a cessation of the spasm, and a free expectoration of mucous, as in common catarrh.

Cold is the chief exciting cause of this disease. It is most frequent during the winter and spring months, and seems particularly apt to arise from sudden vicissitudes of weather. It has been observed; to be most prevalent near the sea coast, and in marshy countries; and is less known in temperate, than northern climes. Underwood in his treatise on the diseases of children, observes; that the change from milk to food more difficult of digestion; is probably sometimes the cause of croup. The same author, also says; that it may be occasioned by fever, or any other chronic diseases that reduce the system. The irritation produced by worms in the alimentary canal, is a frequent cause of the disease

Acute asthma; is the only disease with which croup may be confounded, and which according to Thomas may be distinguished from it, by the following diagnostic symptoms. In croup the cough is shrill and ringing, whereas in asthma there is little or no cough, in croup there is no remission; whereas in asthma it is one of the most striking phenomena of the disease, and is attended with evacuations from the stomach and bowels. In croup the pulse is strong with much febrile heat; the urine high coloured; and the voice shrill and small; in acute asthma; the pulse although perhaps equally quick, is less full, the urine is limpid, and the voice croaking and deep.

Treatment. as this is a very powerful disease, which if suffered to run its course, will in a shorter or longer period destroy the patient; it consequently becomes our duty, to make use of prompt, and effective remedies, for its cure. The great fatality, with which this disease formerly prevailed, may in a great measure be attributed, to an erroneous idea, which pervaded the minds of practitioners;

that the system of the child, was unable to bear the necessary depletion for its cure. To prove that this idea is erroneous, and the practice deduced from it pernicious in the extreme; we need only refer to more modern practice, which amply proves, that if the disease is attached at an early stage, and before the vital energies of the child are weakned; it is able to bear the most copious depletion: and that ~~they~~ children are even more tenacious of life than adults. when called in an early stage of the disease, first give an antimonial emetic, in divided doses at short intervals, at the same time plaeing the patient in the warm bath, for fifteen or twenty minutes; This if it operates, will at times alone relieve the distressing symptoms; if the emetic does not operate, it becomes necessary to bleed the patient largely; if the disease still continues, use topical bleeding by leeches to the throat; at the same time applying a blister which will extend from ear to ear; where the disease is obstinate, and refuses to yield to all these remedies, bleed the patient, were ad deliquium

animi, this seldom fail in ameliorating all the symptoms, the respiration becoming more easy, and at the same time rendering the system susceptable to the impression of other remedies; after producing this change in the system, resort to the use of calomel in large doses, so as to open the bowels effectualy. If the cough is obstinate, and the expectoration difficult use the polygala senega as an expectorant. This practice is only applicable to the disease, in its forming stage, for when the inflammation has extended to the Bronchiæ, there is a large quantity of mucus or phlegm secreted, producing an engogement of the lungs, and then becomes a complete Peripneumonia notha. The treatment at this particular stage of the disease is: first to administer an antimonial emetic, at the same time placing the patient in the warm bath, this produces its good effect by evacuating the mucus or phlegm from the Bronchia, and thus relieving the difficulty of respiration. As soon as the pulse will permit, take away small quantities of

blood from the arm, at the same time watch=
ing its effects on the system; for if taken
in very large quantities, the system is
immediatly reduced below the point of
reaction, and the patient sinks. If the
pulse forbids general depletion, resort
to topical bloodletting by cups applied to
the spine, together with the most stimu=
lating blisters to the thorax; such as cloths
wrung out in hot spirits of turpentine, and
dusted over with powdered cantharides:
Expectorants are now to be used, to throw off
the mucous or phlegm, which engorges the
lungs. the Polygala senega and the oxymel
of squills are both serviceble in this par=
ticular case; it has also been recommended
to inhale the vapour of warm water, with
a small addition of Ether. Calomel used in
small doses at this particular stage of the
disease is also very serviceble: Dr Hamilton
of Edinburg, trusts exclusively to calomel in
the cure of this disease; his mode of em=ploy=
ing it is, to give a dose of from one to five
grains, according to the age of the patient
untill the breathing is evidently relieved

when it is to be gradualy discontinued.

When none of the foregoing means prove successful, and particularly when the dyspnea greatly increases, the operation of Bronchotomy has been recomended, as the only remaining chance of relief; where the disease arises from spasm, and the patient is in danger of being suffocated, the operation will give relief; but when a collection of mucus in the lower part of the Trachea, and Bronchia, is the chief obstacle to respiration, any operation which might be performed, would fail, and the only remedies on which we can rely is either gentle emetics, or expectorants

The best means of preventing a recurrence of this disease, is the use of tonic remedies, the cold bath, a diet easy of digestion, a strict attention to the state of the bowels; and by the use of flannel next the skin, guard the child against the causes of taking cold.

Thus gentlemen, have I finished a short practical essay on croup; to your perusal I commit it, trusting that you will not scan it with a critic's eye, but pass its imperfections by; and believe it to be the production

of an inexperienced writer

Arch. Baldwin

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